

Title (en)
Touch panel

Title (de)
Berührungsbildschirm

Title (fr)
Écran tactile

Publication
EP 2228709 A3 20140507 (EN)

Application
EP 10152718 A 20100205

Priority
JP 2009054921 A 20090309

Abstract (en)
[origin: EP2228709A2] An embodiment of the present invention provides a touch panel that enable data sensing with multi-gray scale and an electronic device. At least a first pixel including a first photosensor portion detecting light with a first color, a second pixel including a second photosensor portion detecting light with a second color, a first A/D converter performing A/D conversion on an output signal of the first photosensor portion, and a second A/D converter performing A/D conversion on an output signal of the second photosensor portion are included. The voltage resolution of the first A/D converter and the voltage resolution of the second A/D converter are different.

IPC 8 full level
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Citation (search report)
• [I] US 2005253942 A1 20051117 - MURAMATSU YOSHINORI [JP], et al
• [I] EP 0793380 A2 19970903 - TOSHIBA KK [JP]
• [I] EP 0710034 A2 19960501 - SYMBIOS LOGIC INC [US]
• [A] US 2005212916 A1 20050929 - NAKAMURA TAKASHI [JP], et al
• [A] WO 2008126768 A1 20081023 - SHARP KK [JP], et al & US 2010134457 A1 20100603 - KATO HIROMI [JP], et al

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AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)
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KR 101692248 B1 20170104; KR 20100101531 A 20100917; US 2010225615 A1 20100909; US 9122348 B2 20150901

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